Higher Order Conditional Entropy-Constrained Trellis-Coded RVQ Withapplication To Pyramid Image Coding

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Summary

This paper introduces an extension of conditional entropy-constrained residual vector quantization (CEC-RVQ) to include quantization cell shape gain. The method is referred to as conditional entropy-constrained trellis-coded RVQ (CEC-TCRVQ). The new design is based on coding image vectors by taking into account their 2D correlation and employing a higher order entropy model with a trellis structure. We employed CEC-TCRVQ to code image subbands at low bit rate. The CEC-TCRVQ coded images do well in term of preserving low-magnitude textures present in some images